REMARKS

Claim 30 stands allowed and claims 36 and 37 stand rejected. Applicant respectfully requests reconsideration and allowance of claims 36 and 37 in view of the following remarks.

Rejection under 35 U.S.C. §103

The Examiner rejected claims 36 and 37 under 35 U.S.C. §103 over Kokoschka et al. (J. Invest. Dermatol. 95:193S-197S, 1990) in view of Edwards et al. (J. Clin. Invest., 75:1908-1913, 1985). The Examiner asserted that "Kokoschka teaches a method of treating stage I and stage II melanoma patients by surgical resection and then administration of recombinant interferon-α (rIFN-α) (see abstract)." The Examiner asserted that "it would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to have used the method of Edwards to determine the appropriate dosage of interferon-α for the treatment of cancer patients prior to surgery for the purpose of increasing the NK cell cytotoxicity in the method of Kokoschka. One would have been motivated to have combined the teachings of Edwards with Kokoschka because both teach that the usefulness of interferon-α in the treatment of cancer is the ability of interferon-α to increase NK cell activity and because both references appear to teach similar dose levels of interferon-α." Applicant respectfully disagrees.

The combination of the Kokoschka et al. and Edwards et al. references does not teach or suggest the methods of claims 36 and 37 in which a baseline level of the patient's natural killer lymphocyte cytotoxicity is determined, an immunostimulatory dosage of an α-interferon composition that increases natural killer lymphocyte cytotoxicity at least about 75% above the baseline is administered to the patient, and a malignant tumor is resected. Rather, the Kokoschka et al. reference teaches a method in which patients were treated with α interferon after surgery. See, for example, abstract and page 194 of Kokoschka et al. Furthermore, as noted by the Examiner on page 4 of the office action, the Kokoschka et al. reference does not teach or suggest determining the baseline level of natural killer lymphocyte cytotoxicity before administering interferon α.

The Edwards et al. reference does not remedy the deficiencies of the Kokoschka et al. reference. While Edwards et al. compared pre and post-interferon levels of NK cell activity, Edwards et al. do not teach or suggest determining a baseline level of NK activity and administering to a patient an immunostimulatory dosage that increases natural killer lymphocyte cytotoxicity at least about 75% above the baseline natural killer lymphocyte cytotoxicity. Rather, based on their experiments with pre and post-interferon levels of NK cell activity, the Edwards et al. reference indicates that maximal stimulation of NK cell activity resulted from single intramuscular injections of 3×10^6 U of interferon and that there is a reciprocal dose response at interferon dosages exceeding 3×10^6 U of interferon. See page 1911 and 1912 of Edwards et al. Thus, if the teachings of Edwards et al. regarding appropriate dosage are combined with the method of Kokoschka et al., malignant tumors would be surgically resected then after surgery, 3×10^6 U of interferon would be administered to the patient.

As set forth in §2142 of the MPEP, "[t]o support the conclusion that the claimed invention is directed to obvious subject matter, either the references must expressly or impliedly suggest the claimed invention or the examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references." *Ex parte Clapp*, 227 USPQ 972, 973 (Bd. Pat. App. & Inter. 1985). Since the combination of cited references does not teach or suggest determining a baseline level of the patient's natural killer lymphocyte cytotoxicity, administering to the patient an immunostimulatory dosage of an α-interferon composition that increases natural killer lymphocyte cytotoxicity at least about 75% above the baseline, and then surgically resecting a malignant tumor, the methods of claims 36 and 37 are not obvious. The Examiner is requested to withdraw the rejection of claims 36 and 37 under 35 U.S.C. §103 over the Kokoschka et al. and Edwards et al. references.

CONCLUSION

In view of the above remarks, Applicants submit that the application is in condition for allowance, which action is requested. No extension of time fees are due as this response is being

filed before the end of the shortened statutory period. Please apply any other charges or credits to deposit account 06-1050.

Respectfully submitted,

Date: 8/4/05

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